What is claimed is:

1. A rolling bearing, which is lubricated with a grease, comprising:

an outer ring having a rolling raceway track on its inner peripheral surface;

an inner ring having a rolling raceway track on its outer peripheral surface;

a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and

a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material,

wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where a kinematic viscosity of base oil at 40℃ of the grease is 10 to 40 mm^2/sec, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$.

2. A rolling bearing, which is lubricated with a grease, comprising:

an outer ring having a rolling raceway track on its inner peripheral surface;

an inner ring having a rolling raceway track on its outer peripheral surface;

a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and

a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material,

wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where a kinematic viscosity of base oil at 40℃ of the grease is 10 to 90 mm^2/sec, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.05$.

3. A rolling bearing, which is lubricated with a grease, comprising:

an outer ring having a rolling raceway track on its inner peripheral surface;

an inner ring having a rolling raceway track on its outer

peripheral surface;

a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and

a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material,

wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where a kinematic viscosity of base oil at 40℃ of the grease is 10 to 160 mm^2/sec, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.025$.

4. The rolling bearing according to claim 1, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$, are disposed at substantially equal spaces in at least three places.

5. The rolling bearing according to claim 2, wherein the pockets of the retainer, each of which is shaped so that the

radial clearance gap ratio δr/Da is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio δa/Da is $0 \leqq \delta a/Da \leqq 0.05$, are disposed at substantially equal spaces in at least three places.

6. The rolling bearing according to claim 3, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio δr/Da is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio δa/Da is $0 \leqq \delta a/Da \leqq 0.025$, are disposed at substantially equal spaces in at least three places.

7. A fan motor using a rolling bearing lubricated with a grease, the rolling bearing comprising: an outer ring having a rolling raceway track on its inner peripheral surface; an inner ring having a rolling raceway track on its outer peripheral surface; a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material, wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where a kinematic viscosity of base oil at 40℃ of the grease is 10 to 40 mm^2/sec, at least one of the pockets of the

retainer is shaped so that the radial clearance gap ratio δr/Da is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio δa/Da is $0 \leqq \delta a/Da \leqq 0.06$.

8. A fan motor using a rolling bearing lubricated with a grease, the rolling bearing comprising: an outer ring having a rolling raceway track on its inner peripheral surface; an inner ring having a rolling raceway track on its outer peripheral surface; a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material, wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where a kinematic viscosity of base oil at 40℃ of the grease is 10 to 90 mm^2/sec, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio δr/Da is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio δa/Da is $0 \leqq \delta a/Da \leqq 0.05$.

9. A fan motor, using a rolling bearing lubricated with a grease, the rolling bearing comprising: an outer ring having

a rolling raceway track on its inner peripheral surface; an inner ring having a rolling raceway track on its outer peripheral surface; a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material, wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where a kinematic viscosity of base oil at 40℃ of the grease is 10 to 160 mm^2/sec, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.025$.

10. The fan motor using a rolling bearing according to claim 7, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$, are disposed at substantially equal spaces in at least three places.

11. The fan motor using a rolling bearing according to

claim 8, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio δr/Da is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio δa/Da is $0 \leqq \delta a/Da \leqq 0.05$, are disposed at substantially equal spaces in at least three places.

12. The fan motor using a rolling bearing according to claim 9, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio δr/Da is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio δa/Da is $0 \leqq \delta a/Da \leqq 0.025$, are disposed at substantially equal spaces in at least three places.

13. A rolling bearing, which is lubricated with a grease, comprising:

an outer ring having a rolling raceway track on its inner peripheral surface;

an inner ring having a rolling raceway track on its outer peripheral surface;

a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and

a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material,

wherein when a diameter of the rolling element is taken

as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where the grease including a base oil of a pour point of -30℃ or lower is used, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$.

14. The rolling bearing according to claim 13, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$, are disposed at substantially equal spaces in at least three places.

15. A fan motor using a rolling bearing lubricated with a grease, the rolling bearing comprising: an outer ring having a rolling raceway track on its inner peripheral surface; an inner ring having a rolling raceway track on its outer peripheral surface; a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring; and a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material, wherein when a diameter of the rolling element is taken as

Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where the grease including a base oil of a pour point of -30℃ or lower is used, at lease one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$.

16. The fan motor using a rolling bearing according to claim 15, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$, are disposed at substantially equal spaces in at least three places.

17. A rolling bearing, which is lubricated with a grease, comprising:

an outer ring having a rolling raceway track on its inner peripheral surface;

an inner ring having a rolling raceway track on its outer peripheral surface;

a plurality of rolling elements disposed between the respective raceway tracks of the outer ring and the inner ring;

and

a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material,

wherein when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where the grease containing 20 mass % or less thickener is used, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$.

18. The rolling bearing according to claim 17, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$, are disposed at substantially equal spaces in at least three places.

19. A fan motor using a rolling bearing lubricated with a grease, the rolling bearing comprising: an outer ring having a rolling raceway track on its inner peripheral surface; an inner ring having a rolling raceway track on its outer peripheral surface; a plurality of rolling elements disposed between the

respective raceway tracks of the outer ring and the inner ring; and a retainer having a plurality of pockets for locking the rolling elements to freely roll and formed of resin material, wherein, when a diameter of the rolling element is taken as Da, a radial clearance gap between a pocket face of the pocket and a rolling face of the rolling element is taken as δr, and an axial clearance gap between the pocket face of the pocket and the rolling face of the rolling element is taken as δa, in the case where the grease containing 20 mass % or less thickener is used, at least one of the pockets of the retainer is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$.

20. The fan motor using a rolling bearing according to claim 19, wherein the pockets of the retainer, each of which is shaped so that the radial clearance gap ratio $\delta r/Da$ is $0 \leqq \delta r/Da \leqq 0.09$, and the axial clearance gap ratio $\delta a/Da$ is $0 \leqq \delta a/Da \leqq 0.06$, are disposed at substantially equal spaces in at least three places.